Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the subject application.

Listing of Claims:

What is claimed is:

1. (Currently Amended) A circuit for controlling a charging parameter provided to a rechargeable battery, said circuit comprising: a power control circuit configured to provide a power control signal representative of a power output level of a DC source, said power control circuit comprising a first path configured to provide a first signal representative of a current level output of said DC source, a second path configured to provide a second signal representative of a voltage level output of said DC source, and a power conversion circuit configured to accept said first and second signal and provide said power control signal in response to said first and second signal, said power conversion circuit comprising a multiplier coupled to said first path and second path, said multiplier configured to accept said first signal and said second signal and provide a third signal, said third signal based on a product of said first and second signal, wherein said power control signal is based on said third signal; and a control signal generating circuit configured to reduce said charging parameter provided to said battery if said power output level exceeds a predetermined power threshold level.

2. (Original) The circuit of claim 1, further comprising a current control circuit configured to provide a current control signal representative of a current output level of a DC source, and wherein said control signal generating circuit is further configured to compare said current control signal with a current threshold signal representative of a current threshold level, and wherein said control signal generating circuit is further configured to reduce said charging parameter provided to said battery if said current output level exceeds said current threshold level.

3. (Cancelled)

4. (Cancelled)

5. (Original) The circuit of claim 4, wherein said first signal comprises a current pulse width modulated signal having a pulse width representative of said current level output of said DC source and wherein said second signal comprises a DC voltage signal having a DC voltage level representative of said voltage level output of said DC source, and wherein said multiplier provides said third signal, said third signal a power pulse width modulated signal having a pulse width representative of said current level output and an amplitude representative of said voltage level output.

6. (Original) The circuit of claim 4, wherein said first path comprises: a sense amplifier configured to provide a voltage signal representative of said current level output of said DC source; and a comparator configured to accept a sawtooth signal and said voltage signal representative of said current level output of said DC source, said comparator configured to provide said current pulse width modulated signal, said current pulse width modulated signal having a pulse width based on an intersection of said sawtooth signal with said voltage signal.

7. (Original) The circuit of claim 6, wherein said comparator provides said current pulse width signal having a first pulse width in response to said voltage signal representative of said current level at a first level, and wherein said comparator provides said current pulse width modulated signal having a second pulse width in response to said voltage signal representative of said current level at a second level, wherein said first pulse width is greater than said second pulse width if said first level is greater than said second level.

8. (Original) The circuit of claim 5, wherein said power conversion circuit comprises a filter configured to accept said third signal and provide said power signal.

9. (Original) The circuit of claim 8, wherein said filter comprises an RC circuit.

10. (Currently Amended) An electronic device comprising a circuit to control a charging parameter provided to a rechargeable battery, said circuit comprising: a power control circuit configured to provide a power control signal representative of a power output level of a DC source, said power control circuit comprising a first path configured to provide a first signal representative of a current level output of said DC source, a second path configured to provide a second signal representative of a voltage level output of said DC source, and a power conversion circuit configured to accept said first and second signal and provide said power control signal in response to said first and second signal, said power conversion circuit comprising a multiplier coupled ot said first path and second path, said multiplier configured ot accept said first signal and said second signal and provide a third signal, said third signal based on a product of said first and second signal, wherein said power control signal is based on said third signal; and a control signal generating circuit configured to reduce said charging parameter provided to said battery if said power output level exceeds a predetermined power threshold level.

11. (Original) The electronic device of claim 10, said circuit further comprising a current control circuit configured to provide a current control signal representative of a current output level of said DC source, and wherein said control signal generating circuit is further configured to compare said current control signal with a current threshold signal representative of a current threshold level, and wherein said control signal generating circuit is further configured to reduce said charging parameter provided to said battery if said current output level exceeds said current threshold level.

12. (Cancelled)

13. (Cancelled)

14. (Original) The electronic device of claim 13, wherein said first signal comprises a current pulse width modulated signal having a pulse width representative of said current level

output of said DC source and wherein said second signal comprises a DC voltage signal having a DC voltage level representative of said voltage level output of said DC source, and wherein said multiplier provides said third signal, said third signal a power pulse width modulated signal having a pulse width representative of said current level output and an amplitude representative of said voltage level output.

15. (Original) The electronic device of claim 13, wherein said first path comprises: a sense amplifier configured to provide a voltage signal representative of said current level output of said DC source; and a comparator configured to accept a sawtooth signal and said voltage signal representative of said current level output of said DC source, said comparator configured to provide said current pulse width modulated signal, said current pulse width modulated signal having a pulse width based on an intersection of said sawtooth signal with said voltage signal.

16. (Original) The electronic device of claim 15, wherein said comparator provides said current pulse width signal having a first pulse width in response to said voltage signal representative of said current level at a first level, and wherein said comparator provides said current pulse width modulated signal having a second pulse width in response to said voltage signal representative of said current level at a second level, wherein said first pulse width is greater than said second pulse width if said first level is greater than said second level.

17. (Original) The electronic device of claim 4, wherein said power conversion circuit comprises a filter configured to accept said third signal and provide said power signal.

18. (Original) The circuit of claim 17, wherein said filter comprises an RC circuit.

19. (Original) A method comprising: monitoring an output power level of a DC source, said monitoring comprising monitoring a current output level of said DC source; providing a pulse width modulated signal having a pulse width representative of said current output level; monitoring a voltage output level of said DC source; providing a DC voltage signal having an

amplitude representative of said voltage output level; multiplying said pulse width modulated signal and said DC voltage signal to obtain a third pulse width modulated signal having a pulse width representative of said current output level and having an amplitude representative of said voltage output level; and filtering said third signal to obtain a fourth signal representative of said output power level of said DC source; comparing said output power level to a threshold power level; and reducing a charging parameter provided to a rechargeable battery if said output power level exceeds said threshold power level.

20. (Original) The method of claim 19, wherein said monitoring step comprises: monitoring a current output level of said DC source; monitoring a voltage output level of said DC source; and multiplying said current output level by said voltage output level to obtain said output power level of said DC source.

21-42 (Cancelled)